

WHAT IS CLAIMED IS:

- 1           1.     A display system for a handheld computing device, the  
2     display system comprising:  
3                 a processing unit having a first communication port; and  
4                 a visual display unit separable from the processing unit, the  
5     visual display unit including:  
6                 a visual display; and  
7                 a second communication port, wherein the display system  
8     can be expanded from an initial or storage state to present a larger visual  
9     display size, the first communication port providing communication with  
10    the second communication port.
- 1           2.     The display system of claim 1, wherein the visual display  
2     unit can be folded or rolled to facilitate storage in a compact or stored  
3     state.
- 1           3.     The display system of claim 2, wherein the handheld  
2     computing device includes a retracting mechanism, the mechanism used  
3     to retract the visual display unit to store the visual display unit in its  
4     compact or stored state.
- 1           4.     The display system of claim 2, wherein the handheld  
2     computing device includes a support apparatus to anchor and support the  
3     visual display unit while it is in use.
- 1           5.     The display system of claim 1, wherein the first  
2     communication port is housed in a first connection housing attached to  
3     the processing unit that mates with the second communication port  
4     housed in a second connection housing attached to the visual display  
5     unit.

1           6.     The display system of claim 5, wherein the first connection  
2     housing attached to the processing unit mates with the second  
3     connection housing attached to the visual display unit to support and  
4     anchor the visual display unit to facilitate viewing.

1           7.     The display system of claim 1, wherein the visual display  
2     unit displays data uploaded from the processing unit while the visual  
3     display unit is separated from the processing unit.

1           8.     The display system of claim 1, wherein the visual display  
2     unit includes a bi-stable visual display.

1           9.     The display system of claim 8, wherein the visual display is  
2     implemented using e-paper technology.

1           10.    The display system of claim 1, wherein the visual display  
2     unit includes a power source to power the visual display unit to display  
3     data while the visual display unit is separated from the processing unit.

1           11.    The display system of claim 1, wherein the visual display  
2     unit includes memory and a microprocessor to store and retrieve data  
3     uploaded from the processing unit.

1           12.    The display system of claim 11, wherein the visual display  
2     unit includes a navigation apparatus to allow the user to access data  
3     stored in the memory associated with the display system.

1           13.    The display system of claim 1, wherein the first and second  
2     communication ports include wireless transceivers.

1           14.    The display system of claim 1, wherein the visual display is  
2     at least partially transparent.

1           15.    The display system of claim 14, wherein the visual display  
2           includes a transparent shutter layer.

1           16.    A handheld computing device comprising:  
2                   a processor;  
3                   a first communications port attached to the handheld  
4           computing device;  
5                   an information storage system; and  
6                   a visual display unit detachable from the handheld computing  
7           device, including:  
8                   a visual display, and  
9                   a second communication port, wherein the visual display unit  
10          can be expanded from a compact state.

1           17.    The handheld computing device of claim 16, wherein the  
2           visual display unit includes random access memory and a second  
3           processor.

1           18.    The handheld computing device of claim 17, wherein the  
2           second processor can access information stored on the random access  
3           memory for display on the visual display.

1           19.    The handheld computing device of claim 18, where the  
2           visual display unit includes a navigation apparatus to instruct the  
3           processing unit to access information in the random access memory for  
4           display on the visual display.

1           20.    The handheld computing device of claim 16, wherein  
2           information is displayed on the visual display while the display unit is  
3           detached from the handheld computing device.

1           21.    The handheld computing device of claim 20, wherein the  
2   visual display unit includes a bi-stable visual display that can display  
3   uploaded information without power requirements.

1           22.    The handheld computing device of claim 20, wherein the  
2   visual display unit includes a power source.

1           23.    The handheld computing device of claim 16, wherein the  
2   visual display unit can be folded or rolled to store in a compact state.

1           24.    The handheld computing device of claim 23, wherein the  
2   handheld computing device includes a storage means for the visual  
3   display unit in the compact state.

1           25.    The handheld computing device of claim 16, wherein the  
2   handheld computing device includes a mechanism to anchor and support  
3   the visual display unit in the expanded state.

1           26.    A visual display unit for a handheld computing device  
2   comprising:

3                   a microprocessor;

4                   a storage system; and

5                   a visual display, wherein the visual display unit can be  
6   expanded from a compact storage state.

1           27.    The visual display unit of claim 26, wherein the visual display  
2   unit includes an apparatus for navigating information stored on the  
3   storage system.

1           28.   A method of using a handheld computer, the method  
2   comprising:  
3               expanding a visual display unit from a compact state to an  
4   expanded state; and  
5               displaying information on the visual display unit to a user.

1           29.   The method of claim 28, the method further comprising:  
2               detaching the visual display unit from the handheld  
3   computing device.

1           30.   The method of claim 29, the method further comprising:  
2               communicating information from the handheld computer to  
3   the visual display unit over a wireless connection.